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## WHAT IS CLAIMED IS:

- An apparatus for cleaning a mold die set, comprising:
- 5 a brush that scrubs a surface of the mold die set to separate a residue from the surface;
  - a vacuum hole that receives the separated residue from the surface of the mold die set; and
  - a plurality of nozzles through which a parting compound is provided to coat the surface of the mold die set.
    - 2. The apparatus of claim 1, further comprising a mechanism to vibrate the brush.
    - 3. The apparatus of claim 1, further comprising a plurality of holes through which air is blown to the surface of the mold die set.
- 20 4. The apparatus of claim 1, further comprising a second brush that scrubs a second surface of the mold die set to separate residue from the second surface of the mold die set.
- 25 5. The apparatus of claim 1, further comprising a second plurality of nozzles through which the parting compound is provided to coat the parting compound on the second surface of the mold die set.
- 30 6. The apparatus of claim 5, wherein the parting compound is provided by being sprayed from the second plurality of nozzles.

7. The apparatus of claim 1, wherein the parting compound is provided by being sprayed from the plurality of nozzles.

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- 8. An apparatus for cleaning a mold die set, comprising:
- a pair of brushes, one of the brushes being positioned to scrub a first surface of the mold die set and the other of the brushes being positioned to scrub a second surface of the mold die set, wherein the scrubbing is to separate a residue from the first and second surfaces of the mold die set;
- a pair of vacuum holes that receives the separated residue from the first and second surfaces of the mold die set, respectively; and
- a plurality of nozzles through which a parting compound is provided to coat the parting compound on the first and second surfaces of the mold die set.

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- 9. The apparatus of claim 8, further comprising a mechanism to vibrate the brush.
- 10. The apparatus of claim 8, further comprising 25 a plurality of holes through which air is blown to the first and second surfaces of the mold die set.
- 11. The apparatus of claim 8, wherein the parting compound is provided by being sprayed from the plurality 30 of nozzles.
  - 12. An apparatus for semiconductor manufacturing, comprising:

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a mold die set having a first surface and a second surface; and

a mold die set cleaner that removes a residue from the first and second surfaces of the mold die set and applies a parting compound to the first and second surfaces.

- 13. The apparatus of claim 12, wherein the mold die set cleaner comprises:
- a brush that scrubs the first surface of the mold die set to separate the residue from the first surface;
- a vacuum hole that receives the separated residue from the first surface of the mold die set; and
- a first plurality of nozzles through which a

  15 parting compound is provided to coat the first surface
  of the mold die set.
  - 14. The apparatus of claim 13, further comprising a mechanism to vibrate the brush.
  - 15. The apparatus of claim 13, wherein the mold die set cleaner further comprise a plurality of holes through which air is blown to the first surface of the mold die set.
  - 16. The apparatus of claim 13, wherein the mold die set cleaner further comprises a second brush that scrubs the second surface of the mold die set to separate the residue from the second surface of the mold die set.
  - 17. The apparatus of claim 13, wherein the mold die set cleaner further comprises a second plurality of

nozzles through which the parting compound is provided to coat the second surface of the mold die set.

- 18. The apparatus of claim 17, wherein the 5 parting compound is provided by being sprayed from the second plurality of nozzles.
- 19. The apparatus of claim 13, wherein the parting compound is provided by being sprayed from the 10 plurality of nozzles.
  - 20. The apparatus of claim 13, wherein the mold die set cleaner further comprises a second vacuum hole that receives the separated residue from the second surfaces of the mold die set.